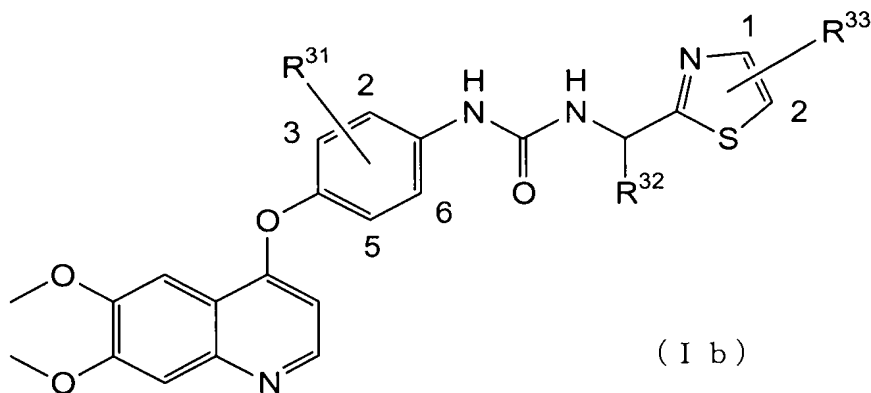


IN THE CLAIMS

Please amend the claims as follows:

Claims 1-18 (Cancelled)

Claim 19 (Currently Amended): ~~The compound according to claim 1,~~ A compound of represented by formula (Ib) or a pharmaceutically acceptable salt or solvate thereof:



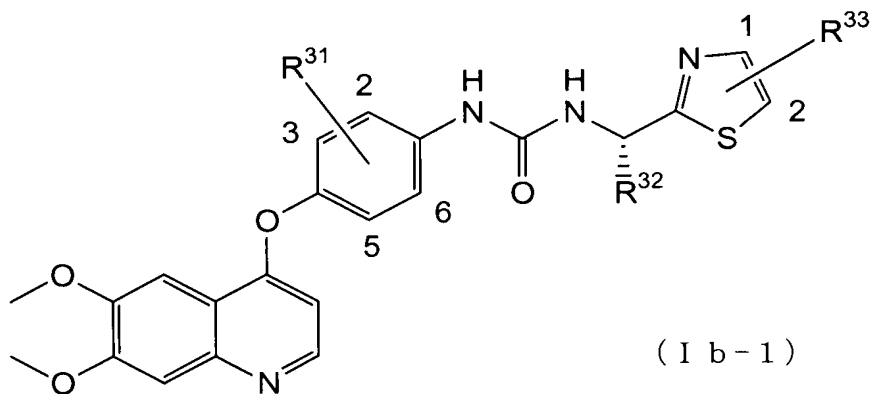
wherein

R^{31} represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

R^{32} represents methyl, and

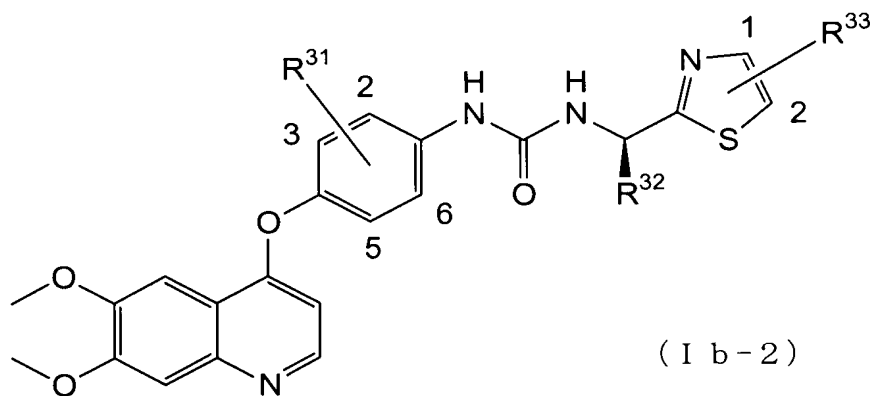
R^{33} represents a hydrogen atom, methyl at 1-position, methyl at 2-position, or methyl at 1- and 2-positions.

Claim 20 (Currently Amended): The compound according to claim 19, wherein the compound represented by formula (Ib) is represented by formula (Ib-1):



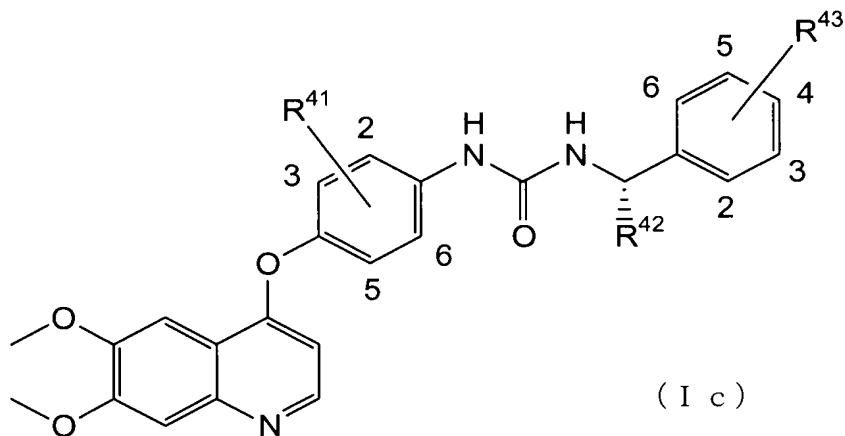
wherein R^{31} , R^{32} , and R^{33} are as defined in formula (Ib).

Claim 21 (Currently Amended): The compound according to claim 19, wherein the compound represented by formula (Ib) is represented by formula (Ib-2):



wherein R^{31} , R^{32} , and R^{33} are as defined in formula (Ib).

Claim 22 (Currently Amended): ~~The compound according to claim 1, represented by~~
A compound of formula (Ic) or a pharmaceutically acceptable salt or solvate thereof:



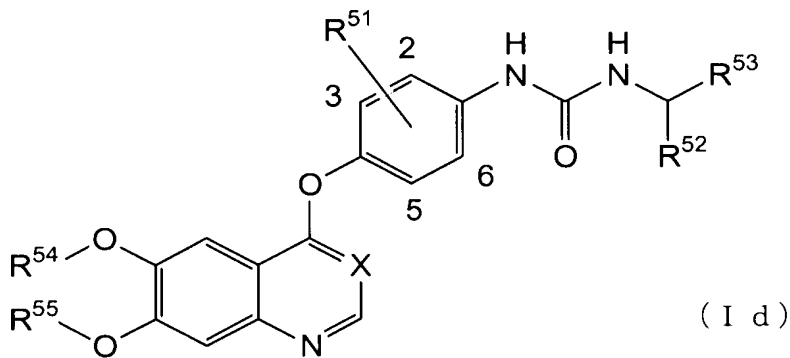
wherein

R^{41} represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

R^{42} represents methyl,

R^{43} represents a fluorine atom at 4-position, a bromine atom at 3-position, a bromine atom at 4-position, methoxy at 2-position, methoxy at 3-position, methoxy at 4-position, a chlorine atom at 4-position, methyl at 4-position, or nitro at 4-position.

Claim 23 (Currently Amended): ~~The compound according to claim 1, represented by~~
A compound of formula (Id) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

R^{51} represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

R^{52} represents methyl,

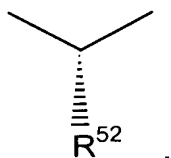
R^{53} represents imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, or isothiazolyl in which one or two hydrogen atoms on the groups are optionally substituted by a halogen atom or C_{1-4} alkyl, and

R^{54} and R^{55} , which may be the same or different, represent a hydrogen atom or C_{1-6} alkyl in which the alkyl group is optionally substituted by hydroxyl; a halogen atom; $-OR^{56}$ wherein R^{56} represents C_{1-4} alkyl; $-NR^{57}R^{58}$ wherein R^{57} and R^{58} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl or $-OR^{59}$ wherein R^{59} represents C_{1-4} alkyl; or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C_{1-4} alkyl.

Claim 24 (Original): The compound according to claim 23, wherein

X represents CH, and

R^{52} represents



Claim 25 (Original): The compound according to claim 24, wherein R^{54} and R^{55} represent methyl.

Claim 26 (Original): The compound according to claim 24, wherein

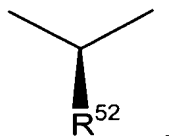
R^{54} represents methyl, and

R^{55} represents C_{1-4} alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 27 (Original): The compound according to claim 23, wherein

X represents CH, and

R^{52} represents



Claim 28 (Original): The compound according to claim 27, wherein R^{54} and R^{55} represent methyl.

Claim 29 (Original): The compound according to claim 27, wherein

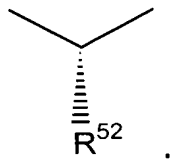
R^{54} represents methyl, and

R^{55} represents C_{1-4} alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 30 (Original): The compound according to claim 23, wherein

X represents N, and

R^{52} represents



Claim 31 (Original): The compound according to claim 30, wherein R^{54} and R^{55} represent methyl.

Claim 32 (Original): The compound according to claim 30, wherein

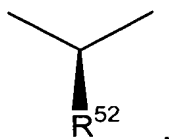
R^{54} represents methyl, and

R^{55} represents C_{1-4} alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 33 (Original): The compound according to claim 23, wherein

X represents N, and

R^{52} represents



Claim 34 (Original): The compound according to claim 33, wherein R^{54} and R^{55} represent methyl.

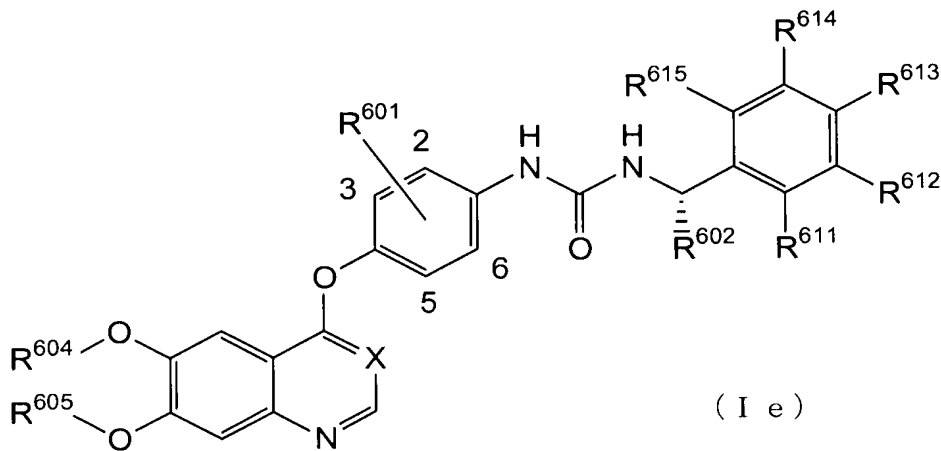
Claim 35 (Original): The compound according to claim 33, wherein

R^{54} represents methyl, and

R^{55} represents C_{1-4} alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 36 (Currently Amended): ~~The compound according to claim 1, represented by~~

A compound of formula (Ie) or a pharmaceutically acceptable salt or solvate thereof:



wherein

R^{601} represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

R^{602} represents methyl,

X represents N or CH,

R^{604} and R^{605} , which may be the same or different, represent a hydrogen atom or C_{1-6} alkyl in which the alkyl group is optionally substituted by hydroxyl; a halogen atom; $-OR^{606}$ wherein R^{606} represents C_{1-4} alkyl; $-NR^{607}R^{608}$ wherein R^{607} and R^{608} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl or $-OR^{609}$ wherein R^{609} represents C_{1-4} alkyl; or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C_{1-4} alkyl, and

R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} , which may be the same or different, represent a hydrogen atom; C_{1-6} alkyl; $-OR^{616}$ wherein R^{616} represents C_{1-4} alkyl; a halogen atom; nitro; or $-NR^{617}R^{618}$ wherein R^{617} and R^{618} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl, $-OR^{619}$ wherein R^{619} represents C_{1-4} alkyl, or $-NR^{620}R^{621}$ wherein R^{620} and R^{621} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl.

Claim 37 (Original): The compound according to claim 36, wherein X represents CH and all of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or any one of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 38 (Original): The compound according to claim 37, wherein all of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or any one of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represents C_{1-6} alkyl, $-OR^{616}$, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 39 (Original): The compound according to claim 38, wherein R^{611} represents methoxy and R^{612} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or R^{612} represents a bromine atom or methoxy and R^{611} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or R^{613} represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R^{611} , R^{612} , R^{614} , and R^{615} represent a hydrogen atom.

Claim 40 (Previously Presented): The compound according to claim 37, wherein R^{604} and R^{605} represent methyl.

Claim 41 (Previously Presented): The compound according to claim 37, wherein R^{604} represents methyl and R^{605} represents C_{1-4} alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 42 (Original): The compound according to claim 36, wherein X represents N and all of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or any one of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

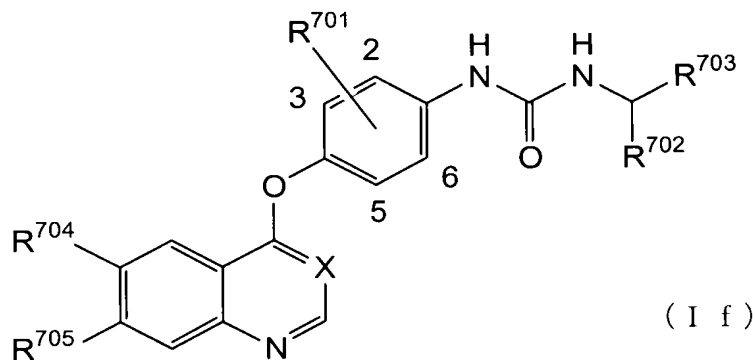
Claim 43 (Original): The compound according to claim 42, wherein all of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or any one of R^{611} , R^{612} , R^{613} , R^{614} , and R^{615} represents C_{1-6} alkyl, $-OR^{616}$, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 44 (Original): The compound according to claim 43, wherein R^{611} represents methoxy and R^{612} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or R^{612} represents a bromine atom or methoxy and R^{611} , R^{613} , R^{614} , and R^{615} represent a hydrogen atom, or R^{613} represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R^{611} , R^{612} , R^{614} , and R^{615} represent a hydrogen atom.

Claim 45 (Previously Presented): The compound according to claim 42, wherein R^{604} and R^{605} represent methyl.

Claim 46 (Previously Presented): The compound according to claim 42, wherein R^{604} represents methyl and R^{605} represents C_{1-4} alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 47 (Currently Amended): ~~The compound according to claim 1, represented by~~
A compound of formula (If) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

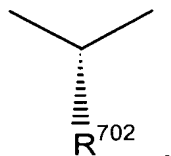
R^{701} represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

R^{702} represents C_{1-4} alkyl,

R^{703} represents imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, or isothiazolyl in which one or two hydrogen atoms on the groups are optionally substituted by a halogen atom or C_{1-4} alkyl, and

R^{704} and R^{705} , which may be the same or different, represent a hydrogen atom; hydroxyl; nitro; cyano; a halogen atom; $-NR^{706}R^{707}$ wherein R^{706} and R^{707} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl, $-OR^{708}$ wherein R^{708} represents C_{1-4} alkyl, or $-NR^{709}R^{710}$ wherein R^{709} and R^{710} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl; $—CONR^{711}R^{712}$ wherein R^{711} and R^{712} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl, $-OR^{713}$ wherein R^{713} represents C_{1-4} alkyl, or $-NR^{714}R^{715}$ wherein R^{714} and R^{715} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl; $—COOR^{716}$ wherein R^{716} represents a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl, $-OR^{717}$ wherein R^{717} represents C_{1-4} alkyl, or $-NR^{718}R^{719}$ wherein R^{718} and R^{719} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl; C_{1-6} alkyl; C_{2-6} alkenyl; C_{2-6} alkynyl; or C_{1-6} alkoxy, in which the alkyl, alkenyl, alkynyl, and alkoxy groups are optionally substituted by hydroxyl, a halogen atom, $-OR^{720}$ in which R^{720} represents C_{1-4} alkyl, $-NR^{721}R^{722}$ wherein R^{721} and R^{722} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl or $-OR^{723}$ wherein R^{723} represents C_{1-4} alkyl, or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C_{1-4} alkyl.

Claim 48 (Original): The compound according to claim 47, wherein X represents CH, and R^{702} represents

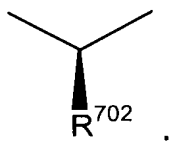


Claim 49 (Original): The compound according to claim 48, wherein R⁷⁰² represents methyl.

Claim 50 (Previously Presented): The compound according to claim 48, wherein R⁷⁰⁴ and R⁷⁰⁵ represent methoxy.

Claim 51 (Previously Presented): The compound according to claim 48, wherein R⁷⁰⁴ represents methoxy, and R⁷⁰⁵ represents C₁₋₄ alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 52 (Original): The compound according to claim 47, wherein X represents CH, and R⁷⁰² represents

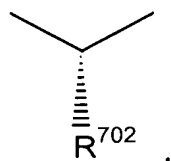


Claim 53 (Original): The compound according to claim 52, wherein R⁷⁰² represents methyl.

Claim 54 (Previously Presented): The compound according to claim 52, wherein R⁷⁰⁴ and R⁷⁰⁵ represent methoxy.

Claim 55 (Previously Presented): The compound according to claim 52, wherein R⁷⁰⁴ represents methoxy, and R⁷⁰⁵ represents C₁₋₄ alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 56 (Original): The compound according to claim 47, wherein X represents N, and R⁷⁰² represents

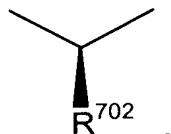


Claim 57 (Original): The compound according to claim 56, wherein R⁷⁰² represents methyl.

Claim 58 (Previously Presented): The compound according to claim 56, wherein R⁷⁰⁴ and R⁷⁰⁵ represent methoxy.

Claim 59 (Previously Presented): The compound according to claim 56, wherein R⁷⁰⁴ represents methoxy, R⁷⁰⁵ represents C₁₋₄ alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 60 (Original): The compound according to claim 47, wherein X represents N, and R⁷⁰² represents

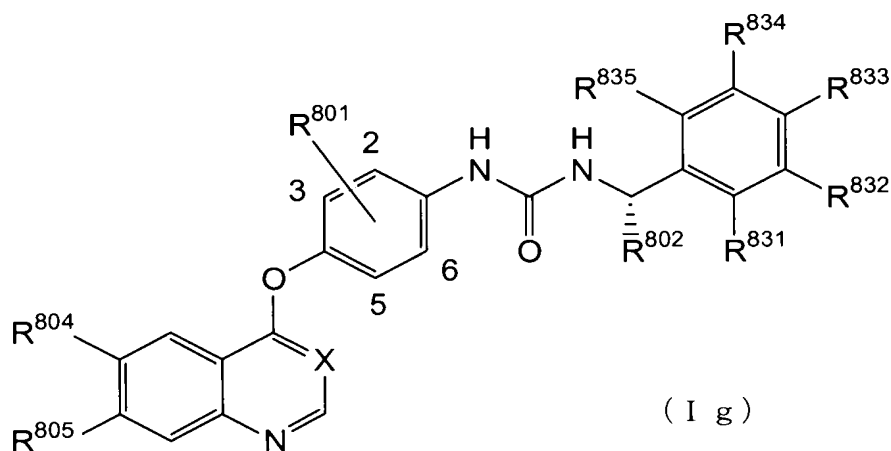


Claim 61 (Original): The compound according to claim 60, wherein R⁷⁰² represents methyl.

Claim 62 (Previously Presented): The compound according to claim 60, wherein R⁷⁰⁴ and R⁷⁰⁵ represent methoxy.

Claim 63 (Previously Presented): The compound according to claim 60, wherein R^{704} represents methoxy, and R^{705} represents C_{1-4} alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 64 (Currently Amended): ~~The compound according to claim 1, represented by~~
A compound of formula (Ig) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

R^{801} represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

R^{802} represents C_{1-4} alkyl,

R^{804} and R^{805} , which may be the same or different, represent a hydrogen atom; hydroxyl; nitro; cyano; a halogen atom; $-NR^{806}R^{807}$ wherein R^{806} and R^{807} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl in which the alkyl group is optionally substituted by hydroxyl, $-OR^{808}$ wherein R^{808} represents C_{1-4} alkyl, or $-NR^{809}R^{810}$ wherein R^{809} and R^{810} , which may be the same or different, represent a hydrogen atom or C_{1-4} alkyl; $—CONR^{811}R^{812}$ wherein R^{811} and R^{812} , which may be the same or different, represent a

hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR⁸¹³ wherein R⁸¹³ represents C₁₋₄ alkyl, or -NR⁸¹⁴R⁸¹⁵ wherein R⁸¹⁴ and R⁸¹⁵, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl; —COOR⁸¹⁶ wherein R⁸¹⁶ represents a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR⁸¹⁷ wherein R⁸¹⁷ represents C₁₋₄ alkyl, or -NR⁸¹⁸R⁸¹⁹ wherein R⁸¹⁸ and R⁸¹⁹, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl; C₁₋₆ alkyl; C₂₋₆ alkenyl; C₂₋₆ alkynyl; or C₁₋₆ alkoxy, in which the alkyl, alkenyl, alkynyl, and alkoxy groups are optionally substituted by hydroxyl, a halogen atom, -OR⁸²⁰ in which R⁸²⁰ represents C₁₋₄ alkyl, -NR⁸²¹R⁸²² wherein R⁸²¹ and R⁸²², which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl or -OR⁸²³ wherein R⁸²³ represents C₁₋₄ alkyl, or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C₁₋₄ alkyl, and

R⁸³¹, R⁸³², R⁸³³, R⁸³⁴, and R⁸³⁵, which may be the same or different, represent a hydrogen atom; hydroxyl; C₁₋₆ alkyl; -OR⁸³⁶ wherein R⁸³⁶ represents C₁₋₄ alkyl; a halogen atom; nitro; or -NR⁸³⁷R⁸³⁸ wherein R⁸³⁷ and R⁸³⁸, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR⁸³⁹ wherein R⁸³⁹ represents C₁₋₄ alkyl, or -NR⁸⁴⁰R⁸⁴¹ wherein R⁸⁴⁰ and R⁸⁴¹, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl.

Claim 65 (Original): The compound according to claim 64, wherein X represents CH and all of R⁸³¹, R⁸³², R⁸³³, R⁸³⁴, and R⁸³⁵ represent a hydrogen atom, or any one of R⁸³¹, R⁸³², R⁸³³, R⁸³⁴, and R⁸³⁵ represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 66 (Original): The compound according to claim 65, wherein all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents C_{1-6} alkyl, $-OR^{836}$, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 67 (Original): The compound according to claim 65, wherein R^{831} represents methoxy and R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{832} represents a bromine atom or methoxy and R^{831} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{833} represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R^{831} , R^{832} , R^{834} , and R^{835} represent a hydrogen atom.

Claim 68 (Previously Presented): The compound according to claim 65, wherein R^{804} and R^{805} represent methoxy.

Claim 69 (Previously Presented): The compound according to claim 65, wherein R^{804} represents methoxy and R^{805} represents C_{1-4} alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 70 (Original): The compound according to claim 64, wherein X represents CH, R^{802} represents methyl, and all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 71 (Original): The compound according to claim 70, wherein all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents C_{1-6} alkyl, $-OR^{836}$, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 72 (Original): The compound according to claim 70, wherein R^{831} represents methoxy and R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{832} represents a bromine atom or methoxy and R^{831} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{833} represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R^{831} , R^{832} , R^{834} , and R^{835} represent a hydrogen atom.

Claim 73 (Previously Presented): The compound according to claim 70, wherein R^{804} and R^{805} represent methoxy.

Claim 74 (Previously Presented): The compound according to claim 70, wherein R^{804} represents methoxy and R^{805} represents C_{1-4} alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 75 (Original): The compound according to claim 64, wherein X represents N and all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 76 (Original): The compound according to claim 75, wherein all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents C_{1-6} alkyl, $-OR^{836}$, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 77 (Original): The compound according to claim 75, wherein R^{831} represents methoxy and R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{832} represents a bromine atom or methoxy and R^{831} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{833} represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R^{831} , R^{832} , R^{834} , and R^{835} represent a hydrogen atom.

Claim 78 (Previously Presented): The compound according to claim 75, wherein R^{804} and R^{805} represent methoxy.

Claim 79 (Previously Presented): The compound according to claim 75, wherein R^{804} represents methoxy and R^{805} represents C_{1-4} alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 80 (Original): The compound according to claim 64, wherein X represents N, R^{802} represents methyl, and all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 81 (Original): The compound according to claim 80, wherein all of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or any one of R^{831} , R^{832} , R^{833} , R^{834} , and R^{835} represents C_{1-6} alkyl, $-OR^{836}$, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 82 (Original): The compound according to claim 80, wherein R^{831} represents methoxy and R^{832} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{832} represents a bromine atom or methoxy and R^{831} , R^{833} , R^{834} , and R^{835} represent a hydrogen atom, or R^{833} represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R^{831} , R^{832} , R^{834} , and R^{835} represent a hydrogen atom.

Claim 83 (Previously Presented): The compound according to claim 80, wherein R^{804} and R^{805} represent methoxy.

Claim 84 (Previously Presented): The compound according to claim 80, wherein R^{804} represents methoxy and R^{805} represents C_{1-4} alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 85 (Cancelled)

Claim 86 (Previously Presented): A pharmaceutical composition comprising a compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof as an active ingredient.

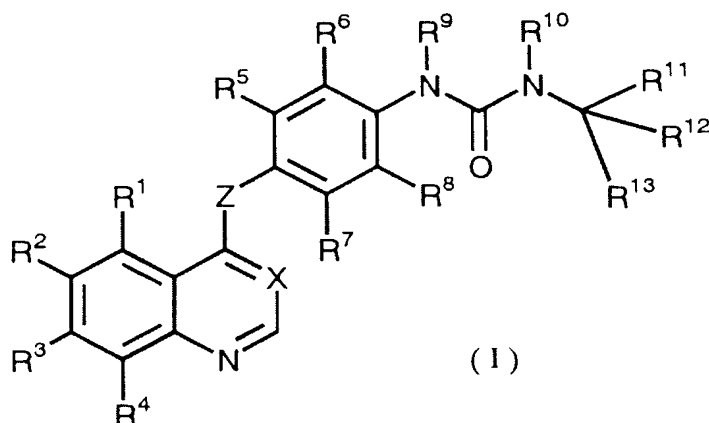
Claims 87-90. (Canceled)

Claim 91 (Currently Amended): A method for treating ~~and preventing a disease~~ osteoporosis or bone metastasis of a malignant tumor ~~for which the inhibition of macrophage colony-stimulating factor receptor autophosphorylation is effective therapeutically, said~~ ~~method~~ comprising:

~~the step of~~

administering a therapeutically or ~~prophylactically~~ effective amount of a compound ~~according to claim 1~~ of formula I or a salt or solvate thereof or a pharmaceutically acceptable salt or solvate thereof to a mammal in need thereof,

wherein formula I is:



wherein

X represents CH or N;

Z represents O or S;

R¹, R², and R³, which may be the same or different, represent a hydrogen atom; a halogen atom; hydroxyl; cyano; C₁₋₆ alkyl; C₁₋₆ alkoxy; C₂₋₆ alkenyl; C₂₋₆ alkynyl; nitro; -NR¹⁰⁶R¹⁰⁷ wherein R¹⁰⁶ and R¹⁰⁷, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR¹⁰⁸ wherein R¹⁰⁸ represents C₁₋₄ alkyl, or -NR¹⁰⁹R¹¹⁰ wherein R¹⁰⁹ and R¹¹⁰, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl; -CONR¹¹¹R¹¹² wherein R¹¹¹ and R¹¹², which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR¹¹³ wherein R¹¹³ represents C₁₋₄ alkyl, or -NR¹¹⁴R¹¹⁵ wherein R¹¹⁴ and R¹¹⁵, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl; or -COOR¹¹⁶ wherein R¹¹⁶ represents a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR¹¹⁷ wherein R¹¹⁷ represents C₁₋₄ alkyl, or -NR¹¹⁸R¹¹⁹ wherein R¹¹⁸ and R¹¹⁹, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the C₁₋₆ alkyl, C₁₋₆ alkoxy, C₂₋₆ alkenyl, and C₂₋₆ alkynyl groups are optionally substituted by a halogen atom; hydroxyl; C₁₋₄ alkyl; C₁₋₄ alkoxy; C₁₋₄ alkoxycarbonyl; amino in which one or two hydrogen atoms on the

amino group each are optionally substituted by C₁₋₄ alkyl optionally substituted by hydroxyl or C₁₋₄ alkoxy; group R¹⁵R¹⁶N-C(=O)-O- wherein R¹⁵ and R¹⁶, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl or C₁₋₄ alkoxy; or group R¹⁷-(S)_m- wherein R¹⁷ represents a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group optionally substituted by a halogen atom or C₁₋₄ alkyl and m is 0 (zero) or 1,

R⁴ represents a hydrogen atom,

R⁵, R⁶, R⁷, and R⁸, which may be the same or different, represent a hydrogen atom, a halogen atom, C₁₋₄ alkyl, C₁₋₄ alkoxy, C₁₋₄ alkylthio, trifluoromethyl, nitro, or amino,

R⁹ and R¹⁰, which may be the same or different, represent a hydrogen atom, C₁₋₆ alkyl, or C₁₋₄ alkylcarbonyl, and

any one of R¹¹ and R¹² represents a hydrogen atom while the other represents C₁₋₄ alkyl, and R¹³ represents a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group or a saturated or unsaturated nine- to twelve-membered bicyclic carbocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by a halogen atom; hydroxyl; C₁₋₄ alkyl; C₁₋₄ alkoxy; C₁₋₄ alkylthio; trifluoromethyl; nitro; or -NR¹³⁷R¹³⁸ wherein R¹³⁷ and R¹³⁸, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR¹³⁹ wherein R¹³⁹ represents C₁₋₄ alkyl, or -NR¹⁴⁰R¹⁴¹ wherein R¹⁴⁰ and R¹⁴¹, which may be the same or different, represent a hydrogen atom or C₁₋₄ alkyl, or

R¹¹ represents a hydrogen atom, and R¹² and R¹³ may combine with a carbon atom attached thereto to form a saturated or unsaturated nine- to twelve-membered bicyclic carbocyclic group.

Claim 92 (Currently Amended): The method ~~for treating and preventing~~ according to claim 91, wherein the disease is osteoporosis

~~for which the inhibition of macrophage colony-stimulating factor receptor autophosphorylation is effective therapeutically is bone metastasis of malignant tumors including breast cancer, prostatic cancer, and lung cancer; multiple myeloma; osteoporosis; Behcet's disease; or rheumatoid arthritis.~~

Claim 93 (New): The method of claim 92, wherein the disease is a bone metastasis of a malignant tumor where the malignant tumor is selected from the group consisting of breast cancer, prostatic cancer, lung cancer, and multiple myeloma.

Claim 94 (New): The method of claim 91, wherein said compound is that of formula I or a salt thereof.

Claim 95 (New): The compound according to claim 19, which is selected from the group consisting of:

(70)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(71)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'---[1-(1,3-thiazol-2-yl)ethyl]urea;

(72)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(73)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(74)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(75)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(76)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(77)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(78)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(79)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(80)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(81)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(82)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(86)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(87)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(88)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(89)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(90)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(91)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(93)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(94)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(95)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(98)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(99)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(100)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea;

(101)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea; and

(105)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea.

Claim 96 (New): The compound according to claim 22, which is selected from the group consisting of:

(2)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(5)N-{2-Chloro-4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(8)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(11)N-{3-Chloro-4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(14)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methylphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(17)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(20)N-[4-(6,7-dimethoxy-4-quinolyl)oxy]-2-(trifluoromethyl)phenyl]-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(23)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(26)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,3-dimethylphenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(29)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(32)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-[(1S)-1-(4-fluorophenyl)ethyl]urea;

(34)N-[(1S)-1-(4-bromophenyl)ethyl]-N'-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}urea;

(35)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-(1S)-1-(4-nitrophenyl)ethyl]urea;

(41)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-W-[(1S)-1-(4-methylphenyl)ethyl]urea;

(46)N-[(1S)-1-(3-bromophenyl)ethyl]-N'-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}urea;

(47)N-[(1S)-1-(4-chlorophenyl)ethyl]-N'-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}urea;

(49)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(3-methoxyphenyl)ethyl]urea;

(51)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(2-methoxyphenyl)ethyl]urea; and

(53)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[(1S)-1-(4-methoxyphenyl)ethyl]urea.